

Algebra 2
Mixed Functions Final Exam Review

Name: Answer Key
Date: _____

Determine if each table below represents a **linear**, **quadratic**, or **exponential** function.

1)

-2	-1	0	1	2	3	4	5
-5	-1	3	7	11	15	19	23

Choose one: Linear quadratic exponential

How do you know? You add the same thing each time.

Initial value: 3

Rate of change: 4

Equation: $y = 4x + 3$

2)

-2	-1	0	1	2	3	4	5
3	4	7	12	19	28	39	52

Choose one: Linear quadratic exponential

How do you know? You add +1, +3, +5, +7, ...

Initial value: 7

Rate of change: +1, +3, +5, +7, ...

Equation: N/A

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3)

-2	-1	0	1	2	3	4	5
12	$11\frac{1}{2}$	11	$10\frac{1}{2}$	10	$9\frac{1}{2}$	9	$8\frac{1}{2}$

Choose one: Linear quadratic exponential

How do you know? You subtract the same thing each time.

Initial value: 11

Rate of change: $-\frac{1}{2}$

Equation: $y = -\frac{1}{2}x + 11$

4)

-2	-1	0	1	2	3	4	5
96	48	24	12	6	3	$1\frac{1}{2}$	$\frac{3}{4}$

Choose one: Linear quadratic exponential

How do you know? You multiply.

Initial value: 24

Rate of change: $\frac{1}{2}$

Equation: $y = 24(\frac{1}{2})^x$

5)

-2	-1	0	1	2	3	4	5
2.56	3.2	4	5	6.25	7.8125	9.765625	12.20703125

Choose one: Linear quadratic exponential

How do you know? You multiply.

Initial value: 4

Rate of change: 1.25

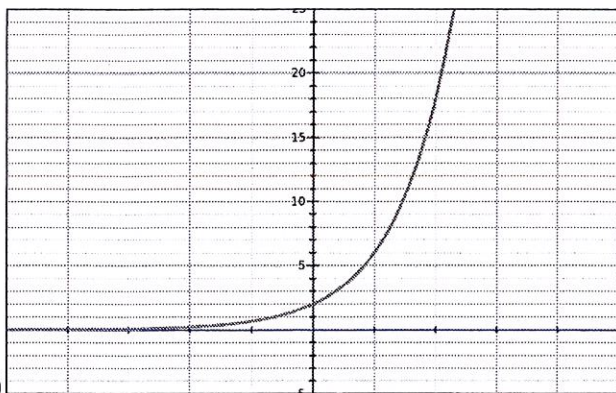
Equation: $y = 4(1.25)^x$

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Determine if each graph below represents a **linear**, **quadratic**, or **exponential** function.

6)



Choose one:

Linear

quadratic

exponential

How do you know? It is a curve.

Initial value:

2

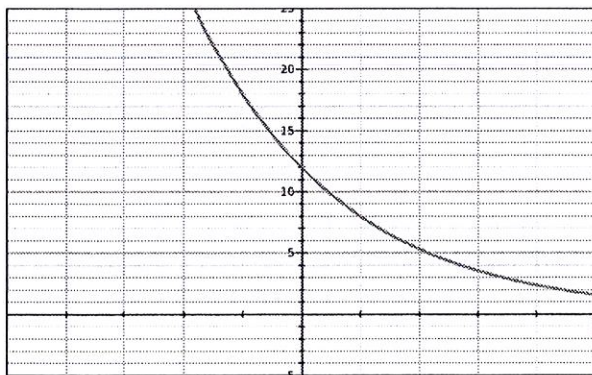
Rate of change:

3

Equation:

$2(3)^x$

7)



(0, 12)

(1, 8)

Choose one:

Linear

quadratic

exponential

How do you know? It is a curve.

Initial value:

12

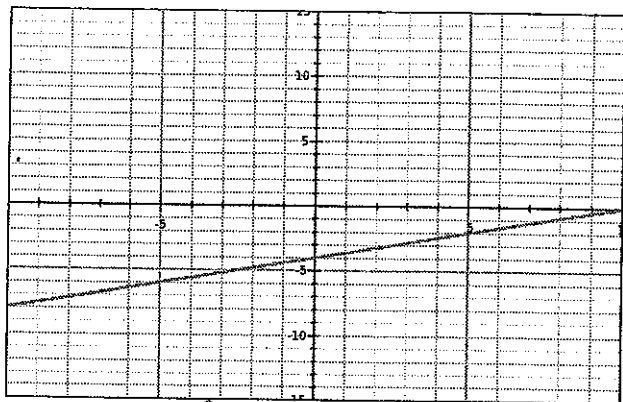
Rate of change:

$\frac{2}{3}$

Equation:

$y = 12(\frac{2}{3})^x$

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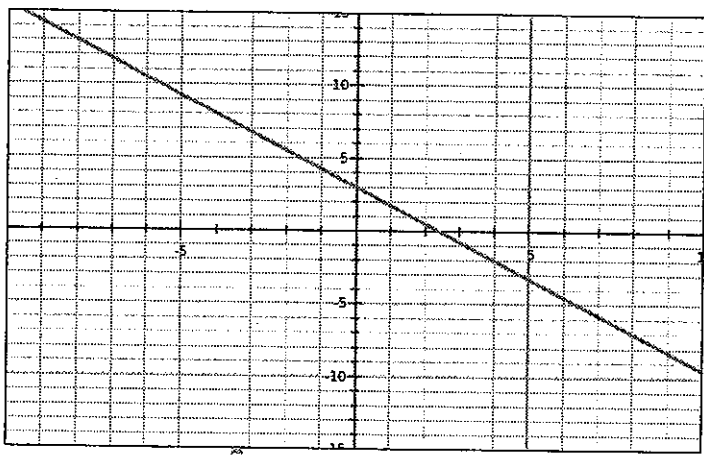
8) Choose one: Linear quadratic exponential

How do you know? It is a line.

Initial value: -4

Rate of change: $-\frac{1}{2}$

Equation: $y = -\frac{1}{2}x - 4$



9) Choose one: Linear quadratic exponential

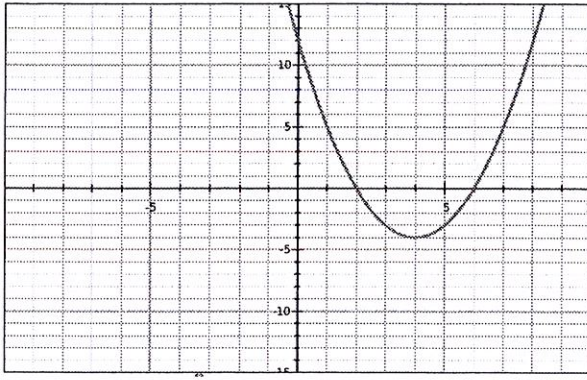
How do you know? It is a line.

Initial value: 3

Rate of change: $-\frac{3}{4}$

Equation: $y = -\frac{3}{4}x + 3$

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10)

Choose one: Linear quadratic exponential

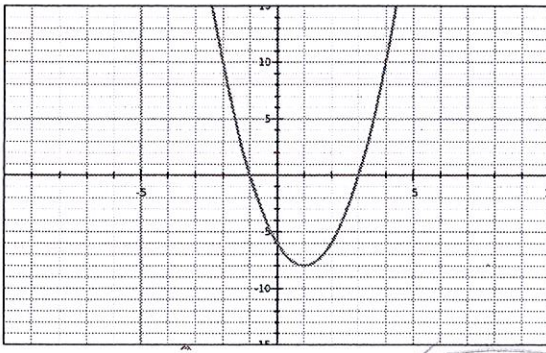
How do you know?

Initial value: _____

Rate of change: _____

Equation: Vertex form: _____ Factored form: _____

Standard form: _____



11)

Choose one: Linear quadratic exponential

How do you know?

Initial value: _____

Rate of change: _____

Equation: Vertex form: _____ Factored form: _____

Standard form: _____